

**IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF TEXAS
WACO DIVISION**

AMERICAN PATENTS LLC,)	
)	
Plaintiff,)	
)	Civil Action No. 6:21-cv-1332
v.)	
)	<u>JURY TRIAL DEMANDED</u>
GRANDE COMMUNICATIONS)	
NETWORKS, LLC,)	
)	
Defendant.)	

**DEFENDANT GRANDE COMMUNICATIONS NETWORKS, LLC’S
ANSWER, AFFIRMATIVE DEFENSES, AND COUNTERCLAIMS TO
PLAINTIFF AMERICAN PATENTS LLC’S COMPLAINT**

Grande Communications Networks, LLC (“Grande” or “Defendant”), through its undersigned counsel, hereby answers Plaintiff American Patents LLC’s (“American Patents” or “Plaintiff”) Complaint for Patent Infringement (“Complaint”). Dkt. No. 1. Grande answers and avers as follows with the numbered paragraphs corresponding to the like-numbered paragraphs of Plaintiff’s Complaint. For ease of reference, Grande incorporates the outline headings used in the Complaint. To the extent such headings make factual allegations, Grande does not adopt or admit such statements and thus denies them.

Any allegations not expressly admitted, denied, or explained, are denied, and Grande specifically denies that Plaintiff is entitled to any relief whatsoever from Grande.

PARTIES

1. Grande lacks information sufficient to form a belief about the truth of the allegations in Paragraph 1 and therefore denies those allegations.

2. Admitted.

3. Grande admits that it offers internet services, but denies the remaining allegations in Paragraph 3.

4. To the extent Grande understands the allegations in Paragraph 4, Grande denies these allegations.

5. To the extent Grande understands the allegations in Paragraph 5, Grande denies these allegations.

6. To the extent Grande understands the allegations in Paragraph 6, Grande denies these allegations.

7. Denied.

JURISDICTION AND VENUE

8. Grande admits that American Patents' allegations purport to arise under the patent laws of the United States, and that this Court has subject matter jurisdiction of the action under 28 U.S.C. §§ 1331 and 1338(a).

9. Grande admits that it is registered to do business in Texas and that personal jurisdiction over Grande is proper in this Court for the purposes of this action. Grande denies the remaining allegations in Paragraph 9.

10. Paragraph 10 recites a legal conclusion and does not require a response, and Grande therefore denies the allegations in Paragraph 10.

BACKGROUND

11. Grande lacks information sufficient to form a belief about the truth of the allegations in Paragraph 11 and therefore denies those allegations.

12. Grande lacks information sufficient to form a belief about the truth of the allegations in Paragraph 12 and therefore denies those allegations.

13. Grande lacks information sufficient to form a belief about the truth of the allegations in Paragraph 13 and therefore denies those allegations.

14. Grande lacks information sufficient to form a belief about the truth of the allegations in Paragraph 14 and therefore denies those allegations.

15. Grande lacks information sufficient to form a belief about the truth of the allegations in Paragraph 15 and therefore denies those allegations.

COUNT I

[ALLEGED] INFRINGEMENT OF U.S. PATENT NO. 7,088,782

16. Grande states that the '782 Patent speaks for itself. Grande agrees that the '782 Patent states that it issued on August 8, 2006, and is entitled "Time And Frequency Synchronization In Multi-Input, Multi-Output (MIMO) Systems." Grande denies any remaining allegations in Paragraph 16.

17. Grande lacks information sufficient to form a belief about the truth of the allegations in Paragraph 17 and therefore denies those allegations.

18. Denied.

19. Denied.

20. Denied.

21. Paragraph 21 recites a legal conclusion. Grande therefore denies the allegations contained in Paragraph 21.

22. Paragraph 22 recites a legal conclusion. Grande therefore denies the allegations contained in Paragraph 22.

23. Paragraph 23 recites a legal conclusion. Grande therefore denies the allegations contained in Paragraph 23.

24. Paragraph 24 recites a legal conclusion. Grande therefore denies the allegations contained in Paragraph 24.

25. Paragraph 25 recites a legal conclusion. Grande therefore denies the allegations contained in Paragraph 25.

26. Paragraph 26 recites a legal conclusion. Grande therefore denies the allegations contained in Paragraph 26.

27. Paragraph 27 recites a legal conclusion. To the extent a response is required, Grande denies any allegation of patent infringement by Plaintiff. Grande additionally denies that it had actual knowledge of the '782 Patent or the alleged infringement of the '782 Patent prior to Plaintiff properly serving the Complaint under the Federal Rules of Civil Procedure on Grande.

28. Denied.

29. Denied.

30. Grande lacks information sufficient to form a belief about the truth of the allegations in Paragraph 30 and therefore denies those allegations.

COUNT II

[ALLEGED] INFRINGEMENT OF U.S. PATENT NO. 7,310,304

31. Grande states that the '304 Patent speaks for itself. Grande agrees that the '304 Patent states that it issued on December 18, 2007, and is entitled "Estimating Channel Parameters in Multi-Input, Multi-Output (MIMO) Systems." Grande denies any remaining allegations in Paragraph 31.

32. Grande lacks information sufficient to form a belief about the truth of the allegations in Paragraph 32 and therefore denies those allegations.

33. Grande admits that it has provided, supplied, distributed, sold, and/or offered for sale the identified accused products, but denies the remaining allegations of Paragraph 33.

34. Denied.

35. Denied.

36. Paragraph 36 recites a legal conclusion. Grande therefore denies the allegations contained in Paragraph 36.

37. Paragraph 37 recites a legal conclusion. Grande therefore denies the allegations contained in Paragraph 37.

38. Paragraph 38 recites a legal conclusion. Grande therefore denies the allegations contained in Paragraph 38.

39. Paragraph 39 recites a legal conclusion. Grande therefore denies the allegations contained in Paragraph 39.

40. Paragraph 40 recites a legal conclusion. To the extent a response is required, Grande denies any allegation of patent infringement by Plaintiff. Grande additionally denies that it had actual knowledge of the '304 Patent or the alleged infringement of the '304 Patent prior to Plaintiff properly serving the Complaint under the Federal Rules of Civil Procedure on Grande.

41. Denied.

42. Denied.

43. Grande lacks information sufficient to form a belief about the truth of the allegations in Paragraph 43 and therefore denies those allegations.

COUNT III

[ALLEGED] INFRINGEMENT OF U.S. PATENT NO. 7,706,458

44. Grande states that the '458 Patent speaks for itself. Grande agrees that the '458 Patent states that it issued on April 27, 2010, and is entitled "Time And Frequency Synchronization In Multi-Input, Multi-Output (MIMO) Systems." Grande denies any remaining allegations in Paragraph 44.

45. Grande lacks information sufficient to form a belief about the truth of the allegations in Paragraph 45 and therefore denies those allegations.

46. Grande admits that it has provided, supplied, distributed, sold, and/or offered for sale the identified accused products, but denies the remaining allegations of Paragraph 46.

47. Denied.

48. Denied.

49. Paragraph 49 recites a legal conclusion. Grande therefore denies the allegations contained in Paragraph 49.

50. Paragraph 50 recites a legal conclusion. Grande therefore denies the allegations contained in Paragraph 50.

51. Paragraph 51 recites a legal conclusion. Grande therefore denies the allegations contained in Paragraph 51.

52. Paragraph 52 recites a legal conclusion. Grande therefore denies the allegations contained in Paragraph 52.

53. Paragraph 53 recites a legal conclusion. Grande therefore denies the allegations contained in Paragraph 53.

54. Paragraph 54 recites a legal conclusion. Grande therefore denies the allegations contained in Paragraph 54.

55. Paragraph 55 recites a legal conclusion. Grande therefore denies the allegations contained in Paragraph 55.

56. Paragraph 56 recites a legal conclusion. To the extent a response is required, Grande denies any allegation of patent infringement by Plaintiff. Grande additionally denies that it had actual knowledge of the '458 Patent or the alleged infringement of the '458 Patent prior to Plaintiff properly serving the Complaint under the Federal Rules of Civil Procedure on Grande.

57. Denied.

58. Denied.

59. Grande lacks information sufficient to form a belief about the truth of the allegations in Paragraph 59 and therefore denies those allegations.

COUNT IV

[ALLEGED] INFRINGEMENT OF U.S. PATENT NO. 6,847,803

60. Grande states that the '803 Patent speaks for itself. Grande agrees that the '803 Patent states that it issued on January 25, 2005, and is entitled "Method for Reducing Interference in a Receiver." Grande denies any remaining allegations in Paragraph 60.

61. Grande lacks information sufficient to form a belief about the truth of the allegations in Paragraph 61 and therefore denies those allegations.

62. Grande admits that it has provided, supplied, distributed, sold, and/or offered for sale the identified accused products, but denies the remaining allegations of Paragraph 62.

63. Denied.

64. Denied.

65. Paragraph 65 recites a legal conclusion. Grande therefore denies the allegations contained in Paragraph 65.

66. Paragraph 66 recites a legal conclusion. Grande therefore denies the allegations contained in Paragraph 66.

67. Grande admits that Paragraph 67 purports to assert only the method claims from the '803 Patent.

68. Denied.

ADDITIONAL ALLEGATIONS REGARDING INFRINGEMENT

69. Grande denies that any of the identified products infringe.

70. Denied.

71. Denied.

72. Denied.

73. Denied.

74. Denied.

75. Denied.

76. Paragraph 76 recites a legal conclusion. Grande therefore denies the allegations contained in Paragraph 76.

77. Denied.

78. Paragraph 78 recites a legal conclusion. Grande therefore denies the allegations contained in Paragraph 78.

79. To the extent Grande understands this allegation, Grande denies the allegations in Paragraph 79.

80. Paragraph 80 recites a legal conclusion. Grande therefore denies the allegations contained in Paragraph 80.

81. Denied.

82. Denied.

83. Denied.

84. Denied.

85. Denied.

86. Denied.

87. Denied.

88. Denied.

89. Denied.

90. Denied.

91. Denied.

92. Denied.

93. Grande has knowledge of the '782 Patent, the '304 Patent, and the '458 Patent as of the date of service of this Complaint, but did not have knowledge of these patents prior to service.

94. Denied.

95. Denied.

96. Denied.

97. Denied.

CLARIFICATION REGARDING PATENT EXPIRATION

98. Grande lacks information sufficient to form a belief about the truth of the allegations in Paragraph 98 and therefore denies those allegations.

AMERICAN PATENTS' JURY DEMAND

Grande admits that American Patents requests trial by jury on all issues so triable.

AMERICAN PATENTS' PRAYER FOR RELIEF

A response is not required to American Patents' prayer for relief. To the extent that any response is deemed required to any paragraph of American Patents' "Prayer for Relief," Grande denies that American Patents is entitled to be awarded any relief whatsoever and denies each and every allegation therein. Grande has not infringed, directly or indirectly, any valid and enforceable claim of the patents-in-suit (the '782, '304, '458, and '803 Patents) and American Patents is not entitled to any remedy or recovery. American Patents' prayer for judgment and relief should therefore be denied in its entirety and with prejudice, and American Patents should take nothing therefor.

ADDITIONAL DEFENSES

Grande asserts the following affirmative defenses. By asserting these defenses, Grande does not intend to take on burdens of proof that it would not otherwise have, does not reduce or remove American Patents' burden of proof on its affirmative claims, and reserves the right to modify, amend, and/or expand upon these defenses or assert any additional defenses to American Patents' claims as they become known during the course of this litigation.

**First Defense
(Failure to State a Claim)**

1. Grande reasserts and re-alleges Paragraphs 1–98 as if fully set forth herein. The Complaint fails to state a claim upon which relief can be granted.

2. Grande also asserts that the Complaint further fails to state a claim upon which relief can be granted because the claims of the patents-in-suit encompass subject matter that is not patent-eligible under 35 U.S.C. § 101.

**Second Defense
(Non-infringement)**

3. Grande reasserts and re-alleges Paragraphs 1–98 as if fully set forth herein. Grande has not infringed and does not infringe, under any theory of infringement, including literally or under the doctrine of equivalents, directly (whether individually or jointly) or indirectly (whether contributorily or by inducement), or willfully, any valid and enforceable claim of the patents-in-suit.

4. American Patents has not met its burden to set forth a basis of infringement of any claim of the patents-in-suit. Therefore, Grande does not infringe any claim of the patents-in-suit at least on that basis.

5. Grande also incorporates its defenses as described below. Because of the reasons set forth in those defenses, including its defenses of invalidity and unenforceability, Grande cannot infringe any valid, enforceable claims of the patents-in-suit.

6. Grande further has not infringed and currently does not infringe, either directly or indirectly, any valid, enforceable, and properly construed claim of the patents-in-suit that American Patents has asserted or will properly assert that Grande infringes, literally or under the doctrine of equivalents or in any other manner. Further, to the extent that Plaintiff asserts that Grande indirectly infringes, either by contributory infringement or inducement of infringement, Grande is not liable to Plaintiff for the acts alleged to have been performed before Grande knew that its actions would cause indirect infringement. Grande anticipates that further investigation and case development will yield further support for existing grounds of non-infringement and

reveal or clarify additional grounds of non-infringement including those that will be described in Grande's discovery disclosures and expert reports.

**Third Defense
(Invalidity)**

7. Grande reasserts and re-alleges Paragraphs 1–98 as if fully set forth herein. The claims of the patents-in-suit are invalid for failure to comply with one or more of the requirements of 35 U.S.C. §§ 101, 102, 103, and/or 112.

8. For example, the patents-in-suit are invalid under 35 U.S.C. §§ 102 and/or 103 because, *inter alia*, the applicant abandoned the alleged invention; the alleged invention was known or used by others in this country and/or patented or described in a printed publication in this or a foreign country before the alleged invention thereof by the applicant; the alleged invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of the application in the United States; and/or the differences between the claimed subject matter and the prior art are such that the subject matter as a whole would have been obvious at the time the alleged invention was made to a person having ordinary skill in the relevant art. Such prior art patents and/or printed publications include, without limitation, the prior art of record in the prosecution and/or reexamination of the patents-in-suit and those that will be described in Grande's discovery disclosures and expert reports which are incorporated herein by reference.

9. Further, the patents-in-suit are invalid under 35 U.S.C. § 112 because, *inter alia*, the specifications do not contain a written description of the alleged invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the relevant art to make and use it without undue experimentation; and/or one or more claims fail to particularly point out and distinctly claim the subject matter which the applicant

regards as his invention. For example, the specification does not adequately support, describe, enable, and or distinctly claim the elements recited in the claims.

10. Further, the patents-in-suit are invalid under 35 U.S.C. § 101 because the claims are directed to an abstract idea. The claims recite the use of general purpose computer components used to perform an abstract idea. The claims do not provide any inventive concept.

11. Grande anticipates that further investigation and case development will reveal further support for existing grounds of invalidity and reveal or clarify additional grounds of invalidity of the patents-in-suit.

**Fourth Defense
(Prosecution Estoppel)**

12. Grande reasserts and re-alleges Paragraphs 1–98 as if fully set forth herein. American Patents’ claims are barred, in whole or in part, under the doctrine of prosecution estoppel, by representations or actions taken during the prosecution of the patent applications that ultimately issued as the patents-in-suit, and/or by representations or actions taken during post-grant proceedings before the USPTO involving the patents-in-suit.

**Fifth Defense
(Dedication to the Public)**

13. Grande reasserts and re-alleges Paragraphs 1–98 as if fully set forth herein. American Patents has dedicated to the public and is estopped from claiming infringement by all subject matter disclosed in the patents-in-suit but not literally claimed therein.

**Sixth Defense
(Equitable Doctrines)**

14. Grande reasserts and re-alleges Paragraphs 1–98 as if fully set forth herein. American Patents’ claims for relief are barred in whole or in part by the equitable doctrines of

laches, unclean hands, estoppel, *in pari delicto*, waiver, acquiescence, and/or other equitable doctrines.

**Seventh Defense
(Release, License, and Exhaustion)**

15. Grande reasserts and re-alleges Paragraphs 1–98 as if fully set forth herein. American Patents’ claims for relief against Grande are barred in whole or in part by release, license, or exhaustion, express or implied, and/or restrictions on double recovery. American Patents’ claims for relief against Grande are barred in whole or in part to the extent that American Patents granted rights in the patents-in-suit to vendors and/or business partners of Grande and/or its affiliates.

**Eighth Defense
(Limitations of Remedies)**

16. Grande reasserts and re-alleges Paragraphs 1–98 as if fully set forth herein. American Patents’ claims for relief are barred in whole or in part by the provisions of 35 U.S.C. §§ 271, 286, and/or 287.

**Ninth Defense
(Intervening Rights)**

17. Grande reasserts and re-alleges Paragraphs 1–98 as if fully set forth herein. Absolute and equitable intervening rights, including under 35 U.S.C. § 252, bar American Patents’ claims for relief in whole or in part.

**Tenth Defense
(Not an Exceptional Case)**

18. Grande reasserts and re-alleges Paragraphs 1–98 as if fully set forth herein. Grande has engaged in good faith in all activities accused of infringement in the Complaint, thereby precluding American Patents, even if it prevails, from recovering attorney fees and/or costs under 35 U.S.C. § 285.

**Eleventh Defense
(No Enhanced Damages)**

19. Grande reasserts and re-alleges Paragraphs 1–98 as if fully set forth herein. American Patents is not entitled to enhanced damages under 35 U.S.C. § 284, at least because American Patents has failed to show, and cannot show, that any infringement has been willful and/or egregious.

**Twelfth Defense
(Lack of Standing)**

20. Grande reasserts and re-alleges Paragraphs 1–98 as if fully set forth herein. To the extent that American Patents did not, or does not, hold all substantial rights, title, and interest to any of the patents-in-suit, American Patents lacks standing to bring, or maintain, this lawsuit in connection with such patents-in-suit. To the extent that assignment to American Patents was insufficient to convey all substantial rights, title, and interest to any of the Asserted American Patents, American Patents lacks standing to bring, or maintain, this lawsuit in connection with such patents-in-suit.

**Thirteenth Defense
(Failure to Mark)**

21. Grande reasserts and re-alleges Paragraphs 1–98 as if fully set forth herein. To the extent that American Patents, its alleged predecessors in interest to the patents-in-suit, and any and all licensees of the patents-in-suit failed to properly mark any of their relevant products as required by 35 U.S.C. § 287 or otherwise give proper notice that Grande’s actions allegedly infringed the patents-in-suit, Grande is not liable to American Patents for the acts alleged to have been performed before receiving actual notice that it was allegedly infringing the patents-in-suit.

**Fourteenth Defense
(Unenforceability)**

22. Grande reasserts and re-alleges Paragraphs 1–98 as if fully set forth herein. Each of the Asserted Patents are unenforceable at least because American Patents’ and/or American Patents’ predecessors failed to disclose the Asserted Patents to the proper Standard-Setting Organizations (“SSO”).

23. With respect to the ’782, ’304, and ’458 Patents, Dr. Apurva Mody is one of the named inventors. American Patents alleges that Grande infringes the ’782, ’304, and ’458 patents based on accused products that purportedly support or comply with the IEEE 802.11n/ac standards. Dr. Mody, however, is listed as a member of the individual balloting committee that voted on the IEEE 802.11n standard. Dr. Mody’s participation in the standard-setting process for IEEE 802.11n and 802.11ac required him to disclose any standards-essential patents. Based on Plaintiff’s allegations against Grande, the ’782, ’304, and ’458 patents are essential to the IEEE 802.11n/ac standards. And, on information and belief, Dr. Mody failed to disclose the ’782, ’304, and ’458 Patents prior to the voting, approval, and/or publication dates of IEEE 802.11n/ac. This constitutes standard-setting misconduct, rendering at least the ’782, ’304, and ’458 Patents unenforceable.

24. The ’782, ’304, and ’458 Patents were also previously assigned to BAE Systems, which is a member of the European Telecommunications Standards Institute (“ETSI”). Based on American Patents’ allegations in other matters, American Patents has asserted that the ’782, ’304, and ’458 Patents are essential to the LTE standards. If BAE Systems failed to disclose these patents as required by ETSI’s Intellectual Property Rights policy, this violation would render these patents unenforceable as well.

25. Nokia is the predecessor-in-interest to the ’803 Patent, and has identified numerous Patents as essential to the 802.11 standard, including in relation to the 802.11ac standard, and

beamforming technologies which are allegedly a contribution of the '803 Patent. On information and belief, if the '803 Patent was a standards-essential patent as American Patents alleges, American Patents' predecessor-in-interest should have also made a standard commitment for the '803 Patent. This constitutes standard-setting misconduct, rendering the '803 Patent unenforceable.

**Fifteenth Defense
(Limitation on Damages Based on FRAND)**

26. Grande reasserts and re-alleges Paragraphs 1–98 as if fully set forth herein. On information and belief, American Patents' claims for monetary relief are limited or barred by its obligations to license the Asserted Patents on fair, reasonable, and non-discriminatory ("FRAND") terms and conditions pursuant to the relevant rules and intellectual property rights policies of the applicable SSOs. American Patents filed this lawsuit without making any FRAND offer prior to suit and therefore violated its FRAND obligations. American Patents' failure to comply with its FRAND obligations limit or otherwise bar the damages, if any, available to American Patents in this action.

RESERVATION OF RIGHTS

Grande reserves any and all rights to amend its answer, to amend the currently pled defenses, and/or add additional defenses as they become apparent.

GRANDE COMMUNICATIONS NETWORKS, LLC'S COUNTERCLAIMS

For its counterclaims against Counterclaim Defendant American Patents LLC ("Counterclaim Defendant" or "American Patents"), Counterclaim Plaintiff Grande Communications Networks, LLC ("Counterclaim Plaintiff" or "Grande") alleges as follows:

NATURE OF ACTION

1. These counterclaims seek declaratory judgment with respect to the patents asserted

by American Patents against Grande. Grande seeks judgment under the patent laws of the United States, 35 U.S.C. § 1 *et seq.*, and the Declaratory Judgment Act, 28 U.S.C. §§ 2201, 2202.

PARTIES

2. Grande is a company duly organized and existing under the laws of Delaware and may be served through its registered agent Corporation Service Company d/b/a/ CSC – Lawyers Incorporated at 211 E. 7th Street, Suite 620, Austin, Texas 78701.

3. Upon information and belief solely on paragraph 1 of the Complaint as pled by Plaintiff, Plaintiff is a limited liability corporation formed under the laws of the State of Texas, with its principal place of business at 2325 Oak Alley, Tyler, Texas 75703.

JURISDICTION AND VENUE

4. These counterclaims arise under the patent laws of Title 35 of the United States Code. The jurisdiction of this Court is proper under at least 35 U.S.C. § 271 *et seq.*, and 25 U.S.C. §§ 1331, 1338, 1367, and 2201–2202.

5. Counterclaim-Defendant has consented to the personal jurisdiction of this Court at least by commencing its action for patent infringement in this District, as set forth in its Complaint.

6. Counterclaim-Defendant has consented to venue in this Court at least by commencing its action for patent infringement in this District, as set forth in its Complaint.

COUNT I: DECLARATION REGARDING NON-INFRINGEMENT OF U.S. PATENT NO. 7,088,782

7. Grande incorporates by reference Paragraphs 1–6 of its Counterclaims.

8. Based on the filing of this action and at least Grande’s second affirmative defense of its Answer, an actual controversy has arisen and now exists between the parties as to whether Grande infringes U.S. Patent No. 7,088,782 (“the ’782 Patent”). Grande does not infringe at least claim 30 of the ’782 Patent because, *inter alia*, the accused products identified in the Complaint at

a minimum do not perform the steps of: (1) “producing a frame of data comprising a training symbol that includes a synchronization component that aids in synchronization, a plurality of data symbols, and a plurality of cyclic prefixes;” (2) “transmitting the frame over a channel;” (3) “receiving the transmitted frame;” (4) “demodulating the received frame;” (5) “synchronizing the received demodulated frame to the transmitted frame such that the data symbols are synchronized in the time domain and frequency domain;” and (6) “wherein the synchronizing in the time domain comprises coarse time synchronizing and fine time synchronizing.”

9. Grande has not and is not now infringing any claim of the ’782 Patent under any theory, including directly (whether individually or jointly) or indirectly (whether contributorily or by inducement).

10. Pursuant to the Federal Declaratory Judgment Act, 28 U.S.C. § 2201 *et seq.*, Grande requests a declaration by the Court that Grande has not infringed and does not infringe any claim of the ’782 Patent under any theory of infringement including directly (whether individually or jointly) or indirectly (whether contributorily or by inducement).

**COUNT II: DECLARATION REGARDING
INVALIDITY OF U.S. PATENT NO. 7,088,782**

11. Grande incorporates by reference Paragraphs 1–10 of its Counterclaims.

12. Based on the filing of this action and at least Grande’s third affirmative defense, an actual controversy has arisen and now exists between the parties as to the validity of the claims of the ’782 Patent.

13. The claims of the ’782 Patent are anticipated and/or rendered obvious by at least, *inter alia*, U.S. Patent Nos. 6,792,035; 6,373,861; 6,148,024; 6,888,899; 6,961,388; and/or U.S. Pub. Nos. 2002/0041635 and/or 2002/0041637. Upon information and belief, additional prior art is available which anticipates and/or renders obvious the claims of the ’782 Patent. Therefore,

Grande reserves its rights to amend this Counterclaim in accordance with the Federal Rules of Civil Procedure and/or identify additional prior art under the Court's Standing Order Governing Proceedings for Patent Cases, particularly in response to any additional allegations of infringement by American Patents.

14. The claims of the '782 Patent are further invalid because the alleged inventions fail to satisfy the conditions of patentability specified in 35 U.S.C. § 100 *et seq.*, including §§ 101, 102, 103, and/or 112, and the doctrine of double patenting.

15. Pursuant to the Federal Declaratory Judgment Act, 28 U.S.C. § 2201 *et seq.*, Grande requests a declaration by the Court that the claims of the '782 Patent are invalid for failure to comply with one or more of the requirements of United States Code, Title 35, including without limitation, 35 U.S.C. §§ 101, 102, 103, and 112, and the rules, regulations, and laws pertaining thereto.

COUNT III: DECLARATION REGARDING NON-INFRINGEMENT OF U.S. PATENT NO. 7,310,304

16. Grande incorporates by reference Paragraphs 1–6 of its Counterclaims.

17. Based on the filing of this action and at least Grande's second affirmative defense of its Answer, an actual controversy has arisen and now exists between the parties as to whether Grande infringes U.S. Patent No. 7,310,304 ("the '304 Patent"). Grande does not infringe at least claim 1 of the '304 Patent because, *inter alia*, the accused products identified in the Complaint do not comprise: (1) "an encoder configured to process data to be transmitted within the OFDM system, the encoder further configured to separate the data onto one or more transmit diversity branches (TDBs);" (2) "one or more OFDM modulators, each OFDM modulator connected to a respective TDB, each OFDM modulator configured to produce a frame including a plurality of data symbols, a training structure, and cyclic prefixes inserted among the data symbols;" (3) "one

or more transmitting antennas in communication with the one or more OFDM modulators, respectively, each transmitting antenna configured to transmit the respective frame over a channel;” and/or (4) “wherein the training structure of each frame includes a predetermined signal transmission matrix at a respective sub-channel, each training structure adjusted to have a substantially constant amplitude in a time domain, and the cyclic prefixes are further inserted within the training symbol, and wherein the cyclic prefixes within the training symbol are longer than the cyclic prefixes among the data symbols, thereby countering an extended channel impulse response and improving synchronization performance.”

18. Grande has not and is not now infringing any claim of the ’304 Patent under any theory, including directly (whether individually or jointly) or indirectly (whether contributorily or by inducement).

19. Pursuant to the Federal Declaratory Judgment Act, 28 U.S.C. § 2201 *et seq.*, Grande requests a declaration by the Court that Grande has not infringed and does not infringe any claim of the ’304 Patent under any theory of infringement including directly (whether individually or jointly) or indirectly (whether contributorily or by inducement).

COUNT IV: DECLARATION REGARDING INVALIDITY OF U.S. PATENT NO. 7,310,304

20. Grande incorporates by reference Paragraphs 16–19 of its Counterclaims.

21. Based on the filing of this action and at least Grande’s third affirmative defense, an actual controversy has arisen and now exists between the parties as to the validity of the claims of the ’304 Patent.

22. The claims of the ’304 Patent are anticipated and/or rendered obvious by at least, *inter alia*, U.S. Patent Nos. 6,850,481; 7,010,029; 6,058,105; 6,029,058; 7,133,459; 6,148,024; and/or 6,996,195; and/or U.S. Pub. No. 2002/0041635. Upon information and belief, additional

prior art is available which anticipates and/or renders obvious the claims of the '304 Patent. Therefore, Grande reserves its rights to amend this Counterclaim in accordance with the Federal Rules of Civil Procedure and/or identify additional prior art under the Court's Standing Order Governing Proceedings for Patent Cases, particularly in response to any additional allegations of infringement by American Patents.

23. The claims of the '304 Patent are further invalid because the alleged inventions fail to satisfy the conditions of patentability specified in 35 U.S.C. § 100 *et seq.*, including §§ 101, 102, 103, and/or 112, and the doctrine of double patenting.

24. Pursuant to the Federal Declaratory Judgment Act, 28 U.S.C. § 2201 *et seq.*, Grande requests a declaration by the Court that the claims of the '304 Patent are invalid for failure to comply with one or more of the requirements of United States Code, Title 35, including without limitation, 35 U.S.C. §§ 101, 102, 103, and 112, and the rules, regulations, and laws pertaining thereto.

**COUNT V: DECLARATION REGARDING
NON-INFRINGEMENT OF U.S. PATENT NO. 7,706,458**

25. Grande incorporates by reference Paragraphs 1–6 of its Counterclaims.

26. Based on the filing of this action and at least Grande's second affirmative defense of its Answer, an actual controversy has arisen and now exists between the parties as to whether Grande infringes U.S. Patent No. 7,706,458 ("the '458 Patent"). Grande does not infringe at least claim 1 of the '458 Patent because, *inter alia*, the accused products identified in the Complaint do not comprise: (1) "a number (Q) of Orthogonal Frequency Division Multiplexing (OFDM) modulators, each OFDM modulator producing a frame having at least one inserted symbol, a plurality of data symbols, and cyclic prefixes;" (2) "Q transmitting antennas, each transmitting antenna connected to a respective OFDM modulator, the transmitting antennas configured to

transmit a respective frame over a channel;” (3) a number (L) of receiving antennas for receiving the transmitted frames; and/or (4) “L OFDM demodulators, each OFDM demodulator corresponding to a respective receiving antenna, the L OFDM demodulators including a synchronization circuit that processes the received frame in order to synchronize the received frame in both time domain and frequency domain, wherein each of the L OFDM demodulators;” (a) “a pre-amplifier;” (b) “a local oscillator;” (c) “a mixer having a first input and a second input, the first input connected to an output of the pre-amplifier, the second input connected to an output of the local oscillator;” (d) “an analog-to-digital converter (ADC) connected to an output of the mixer;” (e) “the synchronization circuit having one input connected to an output of the ADC;” (f) “a cyclic-prefix remover connected to an output of the synchronization circuit;” (g) “a serial-to-parallel converter connected to an output of the cyclic prefix remover;” and/or (h) “a discrete Fournier transform (DFT) stage connected to an output of the serial-to-parallel converter, an output of the DFT stage connected to another input to the synchronization circuit.”

27. Grande has not and is not now infringing any claim of the ’458 Patent under any theory, including directly (whether individually or jointly) or indirectly (whether contributorily or by inducement).

28. Pursuant to the Federal Declaratory Judgment Act, 28 U.S.C. § 2201 *et seq.*, Grande requests a declaration by the Court that Grande has not infringed and does not infringe any claim of the ’458 Patent under any theory of infringement including directly (whether individually or jointly) or indirectly (whether contributorily or by inducement).

**COUNT VI: DECLARATION REGARDING
INVALIDITY OF U.S. PATENT NO. 7,706,458**

29. Grande incorporates by reference Paragraphs 25–28 of its Counterclaims.

30. Based on the filing of this action and at least Grande’s third affirmative defense, an

actual controversy has arisen and now exists between the parties as to the validity of the claims of the '458 Patent.

31. The claims of the '458 Patent are anticipated and/or rendered obvious by at least, *inter alia*, U.S. Patent Nos. 6,792,035; 6,373,861; 6,148,024; 6,888,899; 6,961,388; and/or U.S. Pub. Nos. 2002/0041635 and/or 2002/0041637. Upon information and belief, additional prior art is available which anticipates and/or renders obvious the claims of the '458 Patent. Therefore, Grande reserves its rights to amend this Counterclaim in accordance with the Federal Rules of Civil Procedure and/or identify additional prior art under the Court's Standing Order Governing Proceedings for Patent Cases, particularly in response to any additional allegations of infringement by American Patents.

32. The claims of the '458 Patent are further invalid because the alleged inventions fail to satisfy the conditions of patentability specified in 35 U.S.C. § 100 *et seq.*, including §§ 101, 102, 103, and/or 112, and the doctrine of double patenting.

33. Pursuant to the Federal Declaratory Judgment Act, 28 U.S.C. § 2201 *et seq.*, Grande requests a declaration by the Court that the claims of the '458 Patent are invalid for failure to comply with one or more of the requirements of United States Code, Title 35, including without limitation, 35 U.S.C. §§ 101, 102, 103, and 112, and the rules, regulations, and laws pertaining thereto.

**COUNT VII: DECLARATION REGARDING
NON-INFRINGEMENT OF U.S. PATENT NO. 6,847,803**

34. Grande incorporates by reference Paragraphs 1–6 of its Counterclaims.

35. Based on the filing of this action and at least Grande's second affirmative defense of its Answer, an actual controversy has arisen and now exists between the parties as to whether Grande infringes U.S. Patent No. 6,847,803 ("the '803 Patent"). Grande does not infringe at least

claim 1 of the '803 Patent because, *inter alia*, the accused products identified in the Complaint do not perform the steps of: (1) “receiver signals are received with at least a first antenna (ANT1) and a second antenna (ANT2);” (2) “characterized in that, on the basis of signals received with said first antenna (ANT1) and second antenna (ANT2) at moments of time other than in said receiving time slot;” and/or (3) “when no information is being received, a reference signal representing interference in said other time slot is formed and used for the tuning of the receiver in said receiving time slots.”

36. Grande has not and is not now infringing any claim of the '803 Patent under any theory, including directly (whether individually or jointly) or indirectly (whether contributorily or by inducement).

37. Pursuant to the Federal Declaratory Judgment Act, 28 U.S.C. § 2201 *et seq.*, Grande requests a declaration by the Court that Grande has not infringed and does not infringe any claim of the '803 Patent under any theory of infringement including directly (whether individually or jointly) or indirectly (whether contributorily or by inducement).

COUNT VIII: DECLARATION REGARDING INVALIDITY OF U.S. PATENT NO. 6,847,803

38. Grande incorporates by reference Paragraphs 34–37 of its Counterclaims.

39. Based on the filing of this action and at least Grande’s third affirmative defense, an actual controversy has arisen and now exists between the parties as to the validity of the claims of the '803 Patent.

40. The claims of the '803 Patent are anticipated and/or rendered obvious by at least, *inter alia*, U.S. Patent No. 6,201,955; 6,970,680; U.S. Patent App. No. 09/087,192; P. Wong *et al.*’s “Low-complexity Diversity Combining Algorithms and Circuit Architectures for Co-channel Interference Cancellation and Frequency Selective Fading Mitigation,” IEEE Transactions of

Communications, Vol. 44, No. 9, pp.1107-1116 (Sept. 1996) based on Feb. 6, 1996 draft from Center for Telecommunications, Stanford; and/or JP App. Pub. No. 02-121428. Upon information and belief, additional prior art is available which anticipates and/or renders obvious the claims of the '803 Patent. Therefore, Grande reserves its rights to amend this Counterclaim in accordance with the Federal Rules of Civil Procedure and/or identify additional prior art under the Court's Standing Order Governing Proceedings for Patent Cases, particularly in response to any additional allegations of infringement by American Patents.

41. The claims of the '803 Patent are further invalid because the alleged inventions fail to satisfy the conditions of patentability specified in 35 U.S.C. § 100 *et seq.*, including §§ 101, 102, 103, and/or 112, and the doctrine of double patenting.

42. Pursuant to the Federal Declaratory Judgment Act, 28 U.S.C. § 2201 *et seq.*, Grande requests a declaration by the Court that the claims of the '803 Patent are invalid for failure to comply with one or more of the requirements of United States Code, Title 35, including without limitation, 35 U.S.C. §§ 101, 102, 103, and 112, and the rules, regulations, and laws pertaining thereto.

COUNT IX: DECLARATION REGARDING UNENFORCEABILITY OF U.S. PATENT NO. 7,088,782

43. Based on the filing of this action and at least Grande's Fourteenth affirmative defense, an actual controversy has arisen and now exists between the parties as to the enforceability of the claims of the '782 Patent.

44. American Patents and/or American Patents' predecessors-in-interest of the '782 Patent have engaged in standards-setting misconduct, including, but not limited to, breach of the commitment to disclose standard-essential patents.

45. As set forth in detail in Grande's Fourteenth affirmative defense, Dr. Apurva Mody

is a named inventor of the '782 Patent, and American Patents alleges that Grande has infringed the '782 Patent because the accused products support IEEE 802.11n/ac standards. Dr. Mody is listed as a member of the individual balloting committee that voted on the IEEE 802.11n standard. His participation in the standard-setting process for IEEE 802.11n and 802.11ac required him to disclose any standards-essential patents. Based on American Patents' allegations in this matter, the '782 Patent is essential to the IEEE 802.11n/ac standards. On information and belief, Dr. Mody failed to disclose the '782 Patent prior to the voting, approval, and/or publication dates of IEEE 802.11n/ac. This constitutes standard-setting misconduct, which threatens continued harm to Grande, rendering the '782 Patent unenforceable.

46. On information and belief, the '782 Patent was previously assigned to BAE Systems, a member of the European Telecommunications Standards Institute ("ETSI"). Based on American Patents' allegations in other matters, the '782 Patent is essential to the LTE standards. To the extent that BAE Systems failed to disclose the '782 Patent as required by ETSI's Intellectual Property Rights policy, such violations render the '782 Patent unenforceable.

47. Pursuant to the Federal Declaratory Judgment Act, 28 U.S.C. § 2201 *et seq.*, Grande requests a declaration by the Court that the claims of the '782 Patent are unenforceable.

**COUNT X: DECLARATION REGARDING
UNENFORCEABILITY OF U.S. PATENT NO. 7,310,304**

48. Based on the filing of this action and at least Grande's Fourteenth affirmative defense, an actual controversy has arisen and now exists between the parties as to the enforceability of the claims of the '304 Patent.

49. American Patents and/or American Patents' predecessors-in-interest of the '304 Patent have engaged in standards-setting misconduct, including, but not limited to, breach of the

commitment to disclose standard-essential patents.

50. As set forth in detail in Grande's Fourteenth affirmative defense, Dr. Apurva Mody is a named inventor of the '304 Patent, and American Patents alleges that Grande has infringed the '304 Patent because the accused products support IEEE 802.11n/ac standards. Dr. Mody is listed as a member of the individual balloting committee that voted on the IEEE 802.11n standard. His participation in the standard-setting process for IEEE 802.11n and 802.11ac required him to disclose any standards-essential patents. Based on American Patents' allegations in this matter, the '304 Patent is essential to the IEEE 802.11n/ac standards. On information and belief, Dr. Mody failed to disclose the '304 patent prior to the voting, approval, and/or publication dates of IEEE 802.11n/ac. This constitutes standard-setting misconduct, which threatens continued harm to Grande, rendering the '304 Patent unenforceable.

51. On information and belief, the '304 Patent was previously assigned to BAE Systems, a member of the European Telecommunications Standards Institute ("ETSI"). Based on American Patents' allegations in other matters, the '304 Patent is essential to the LTE standards. To the extent that BAE Systems failed to disclose the '304 Patent as required by ETSI's Intellectual Property Rights policy, such violations render the '304 Patent unenforceable.

52. Pursuant to the Federal Declaratory Judgment Act, 28 U.S.C. § 2201 *et seq.*, Grande requests a declaration by the Court that the claims of the '304 Patent are unenforceable.

COUNT XI: DECLARATION REGARDING UNENFORCEABILITY OF U.S. PATENT NO. 7,706,458

53. Based on the filing of this action and at least Grande's Fourteenth affirmative defense, an actual controversy has arisen and now exists between the parties as to the enforceability of the claims of the '458 Patent.

54. American Patents and/or American Patents' predecessors-in-interest of the '458

Patent have engaged in standards-setting misconduct, including, but not limited to, breach of the commitment to disclose standard-essential patents.

55. As set forth in detail in Grande's Fourteenth affirmative defense, Dr. Apurva Mody is a named inventor of the '458 Patent, and American Patents alleges that Grande has infringed the '458 Patent because the accused products support IEEE 802.11n/ac standards. Dr. Mody is listed as a member of the individual balloting committee that voted on the IEEE 802.11n standard. His participation in the standard-setting process for IEEE 802.11n and 802.11ac required him to disclose any standards-essential patents. Based on American Patents' allegations in this matter, the '458 Patent is essential to the IEEE 802.11n/ac standards. On information and belief, Dr. Mody failed to disclose the '458 patent prior to the voting, approval, and/or publication dates of IEEE 802.11n/ac. This constitutes standard-setting misconduct, which threatens continued harm to Grande, rendering the '458 Patent unenforceable.

56. On information and belief, the '458 Patent was previously assigned to BAE Systems, a member of the European Telecommunications Standards Institute ("ETSI"). Based on American Patents' allegations in other matters, the '458 Patent is essential to the LTE standards. To the extent that BAE Systems failed to disclose the '458 Patent as required by ETSI's Intellectual Property Rights policy, such violations render the '458 Patent unenforceable.

57. Pursuant to the Federal Declaratory Judgment Act, 28 U.S.C. § 2201 *et seq.*, Grande requests a declaration by the Court that the claims of the '458 Patent are unenforceable.

COUNT XII: DECLARATION REGARDING UNENFORCEABILITY OF U.S. PATENT NO. 6,847,803

58. Based on the filing of this action and at least Grande's Fourteenth affirmative defense, an actual controversy has arisen and now exists between the parties as to the enforceability

of the claims of the '803 Patent.

59. American Patents and/or American Patents' predecessors-in-interest engaged in standards-setting misconduct, including, but not limited to, breach of the commitment to disclose standard-essential patents. Nokia, the predecessor-in-interest to the '803 Patent, identified numerous of its Patents as essential to the 802.11 standard, including in relation to the 802.11ac standard, and beamforming technologies which are allegedly a contribution of the '803 Patent adopted by the 802.11ac standard. On information and belief, if the '803 Patent was a standards-essential patent as American Patents alleges in this case, American Patents' predecessor-in interest should have made a standard commitment for the '803 Patent. On information and belief, Nokia representatives participated in the drafting and approval of the 802.11ac standard but failed to disclose the '803 Patent. This conduct constitutes standard-setting misconduct that threatens harm to Grande, rendering the '803 Patent unenforceable.

60. Pursuant to the Federal Declaratory Judgment Act, 28 U.S.C. § 2201 *et seq.*, Grande requests a declaration by the Court that the claims of the '803 Patent are unenforceable.

EXCEPTIONAL CASE

61. For the reasons set forth in Grande's Affirmative Defenses and its Counterclaims, this is an exceptional case entitling Grande to an award of attorney fees pursuant to 35 U.S.C. § 285.

PRAYER FOR RELIEF

WHEREFORE, having fully answered the Complaint for Patent Infringement, Grande respectfully requests that the Court enter judgment in favor of Grande and against American Patents as follows:

A. Dismiss the Complaint in its entirety with prejudice;

- B. Deny all remedies and relief that American Patents seeks in the Complaint;
- C. Enter judgment that Grande does not infringe, in any manner, any valid and enforceable asserted claim of the '782 Patent, either directly or indirectly, and either literally or under the doctrine of equivalents;
- D. Enter judgment that Grande does not infringe, in any manner, any valid and enforceable asserted claim of the '304 Patent, either directly or indirectly, and either literally or under the doctrine of equivalents;
- E. Enter judgment that Grande does not infringe, in any manner, any valid and enforceable asserted claim of the '458 Patent, either directly or indirectly, and either literally or under the doctrine of equivalents;
- F. Enter judgment that Grande does not infringe, in any manner, any valid and enforceable asserted claim of the '803 Patent, either directly or indirectly, and either literally or under the doctrine of equivalents;
- G. Judgment that one or more of the claims of each of the patents-in-suit that American Patents has asserted or will properly assert against Grande is invalid and/or patent ineligible pursuant to Title 35 of the United States Code;
- H. Enter judgment that each of the claims of the patents-in-suit are unenforceable;
- I. That American Patents take nothing by reason of its Complaint;
- J. Find this case exceptional and award Grande its attorney's fees and expenses against American Patents under 35 U.S.C. § 285;
- K. Award Grande its reasonable attorneys' fees, costs, and expenses in connection with this action to the extent permitted under 35 U.S.C. § 284 or otherwise by law; and

L. Award such other and further relief to Grande as the Court may deem just and proper under the circumstances.

DEMAND FOR JURY TRIAL

Grande hereby requests a trial by jury on all issues so triable.

Dated: March 28, 2022

Respectfully submitted,

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Certificate of Service

The undersigned certifies that on March 28, 2022, a true and accurate copy of the above and foregoing was e-filed with the Court using the CM/ECF system, to be served electronically on all counsel of record in this matter.

/s/ Richard L. Brophy